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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/191,281	11/12/1998	NEELAKANTAN SUNDARESAN	AM9-98-157	8452

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EXAMINER

SINGH, RACHNA

ART UNIT PAPER NUMBER

2176

DATE MAILED: 07/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/191,281

Applicant(s)

SUNDARESAN, NEELAKANTAN

Examiner

Rachna Singh

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 November 1998.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-69 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This action is responsive to communications: application, filed 11/12/98;
2. Claims 1-69 are pending in the case. Claims 1, 24, and 47 are independent claims.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-7, 9-10, 15-16, 20, 22-26, 28-30, 32-33, 38-39, 47-49, 51-53, 55-56, 61-62, 66, and 68-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over **XMetal 1.0**, Available at: <http://www.webreference.com/html/watch/xmetal>, in view of Alschuler, Liora, **"SoftQuad previews XMetal Prototype"**, May 1998, The Seybold Report on Internet Publishing, Vol 2, No. 9.

In reference to independent claims 1, 24, and 47, Softquad's XMetal teaches using a DTD to create a document editor which allows a user to create a document through a user interface. XMetal maps constructs in the DTD to familiar GUI objects. (compare to ***"generating one or more class specifications in the computer from a schema for the document, wherein the class specifications identify user interface components of the editor corresponding to entities defined in the schema;"***).

XMetal lets the user enter values for attributes and elements corresponding to the DTD.

(compare to ***instantiating one or more objects in the computer from the class***

***specifications to invoke the prior art***). It would have been obvious to one of ordinary skill in the art to combine Alshulder's disclosure of XMetal dated May 1998 with WebReference's XMetal disclosure since it provides details of the same product.

In reference to claims 2, 25, and 48, XMetal uses an XML document and a document type definition (DTD) which is an XML schema.

In reference to claims 3, 26, and 49, XMetal uses a Document Type Definition (DTD). XMetal does not state the use of XSchema or DCD; however, while both use different syntax, they both provide descriptions of document structures. Since both create documentation, it would have been obvious to one of ordinary skill in the art at the time of then invention to extend the schema group to include DCD and XSchema.

In reference to claims 5, 28, and 51, XMetal converts constructs in the DTD into a GUI object that can be specified through the GUI. See XMetal 1.0.

In reference to claims 6, 29, and 52, XMetal teaches a means for allowing the user to customize names and descriptions of elements and attributes of a document. See section 6, page 1.

In reference to claims 7, 30, and 53, XMetal discloses customizing specifications to set special handling of elements using scripting and programming languages. It would have been obvious to one of ordinary skill in the art to define class names for entities since it was common to customize elements in the document at the time of the invention.

In reference to claims 9, 32, and 55, XMetal maps the DTD entities or constructs to that of the GUI editor. See XMetal 1.0.

In reference to claim 10, 33, and 56, XMetal discloses the entities comprising elements and attributes. See section 2, pages 1-4 and sections 3-4.

In reference to claims 15, 38, and 61, XMetal can validate any document based on the DTD. XMetal assures that a document remains valid by parsing the DTD and customizing menus and functions based on the document type. See section 4, pages 2-3.

In reference to claims 16, 39, and 62, XMetal validates the class specifications entered in the GUI against a DTD. See section 4, pages 2-3.

In reference to claims 20, 43, and 66, XMetal generates windows of the GUI based on the entity in the DTD (schema). See section 2, pages 3-4.

In reference to claims 22, 45, and 68, XMetal provides the user with only options allowed by the DTD when defining elements in the element list. See section 4, page 1.

In reference to claims 23, 46, and 69, XMetal assures that documents are valid by automatically inserting elements that are required by the schema. (compare to attempting to solve optimization and correctness). Moreover, XMetal has CSS support to deal with aesthetic issues. See section 4, pages 2-3.

5. Claims 4, 8, 21, 27, 31, 44, 50, 54, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over **XMetal 1.0**, Available at:

<http://www.webreference.com/html/watch/xmetal>, in view of

Alschuler, Liora, "**SoftQuad previews XMetal Prototype**", May 1998, The Seybold Report on Internet Publishing, Vol 2, No. 9, as applied to claims 1, 24, and 47 above, and further in view of Softquad HotMetalPro 3.0 User's Manual, 1996, pages 77-83.

In reference to claims 4, 27, and 50, XMetal does not disclose the class specifications comprise Java class specifications; however, HotMetal Pro, an HTML editor from which XMetal is derived, teaches the use of Java for use in a document editing window. See pages 77-81. Java class specifications are used to identify various entities and components of the user interface. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Java class specifications in identifying the user interface components of the document editor, since XMetal's predecessor used it.

In reference to claims 8, 31, and 54, XMetal does not state a group comprising a visual editor class, a content implementation class, and handler class; however, HotMetalPro allows the user to use Java in the document editing window and provide various applets for visual means as well as customizing elements. See pages 77-80. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide any of the above mentioned groups since a class specification could relate to the visual editor, the components of XML schemas and initiators of the visual editor.

In reference to claims 21, 44, and 67, XMetal does not disclose specifying widget implementations for use with the editor; however, Xmetal's predecessor HotMetal Pro, an HTML editor from which XMetal is derived, teaches the use of Java for use in a document editing window. The user can choose a class file or drag and drop it into the document window. See pages 77-80. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize implementations for widgets since

utilizing java class objects for special processing of the screen was well known at the time of the invention.

6. Claims 11-14, 34-37, and 57-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over **XMetal 1.0**, Available at:

<http://www.webreference.com/html/watch/xmetal>, in view of

Alschuler, Liora, "**SoftQuad previews XMetal Prototype**", May 1998, The Seybold Report on Internet Publishing, Vol 2, No. 9, as applied to claims 1, 24, and 47 above, and further in view of W3C Extensible Markup Language (XML) 1.0, 2/1998, available: <http://www.w3.org/TR/1998/REC-xml-19980210>.

In reference to claims 11, 34, and 57, it was well known at the time of the invention that declarations of attributes in a Document Type Definition of an XML document comprised mandatory, optional, and fixed values. See W3C Recommendation XML 1.0 pages, 18-21.

In reference to claims 12-14, 35-37, and 58-60, XMetal reads in the DTD of the XML document thus any of the declarations of the attributes are carried through. Thus, when the user defines certain attributes, it takes the declarations into consideration. See W3C Recommendation XML 1.0, pages 18-21.

7. Claims 17-19, 40-42, and 63-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over **XMetal 1.0**, Available at:

<http://www.webreference.com/html/watch/xmetal>, in view of

Alschuler, Liora, ***"SoftQuad previ ws XMetal Prototype"***, May 1998, The Seybold Report on Internet Publishing, Vol 2, No. 9, as applied to claims 1, 24, and 47, and further in view of Patent Application 09/191, 281, Background of Invention, 11/12/98.

In reference to claims 17-18, 40-41, and 63-64, as stated in the "Background of Invention" of the application, XML schema languages describe a regular expression system to express how elements occur using operators comprising: "zero or more" operator, "one or more" operator, "one or another" operator, "one followed by another" operator, "zero or one" operator, "grouping" operator, "any" operator. Since the class specifications are derived from a DTD which is a type of schema, it would have been obvious to one of ordinary skill in the art to generate those specifications from a regular expression language comprising one or more declarations of elements within an element as a schema language describes the type and order in which elements can be contained inside another element. See pages 3-4 of 09/191,281.

In reference to claims 19, 42, and 65, XMetal comprises an attribute inspector and element list window in which the corresponding elements and associated operators are constructed from the DTD. See section 2, page 3.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 5,915,259	Murata	6/22/99
US Patent 5,924,101	Bach et al.	7/13/99
US Patent 5,926,823	Okumara et al.	7/20/99



US Patent 6,279,015 Fong et al. 8/21/01

W3C Document Content Description for XML, July 1998, <http://www.w3.org/TR/NOTE-dcd>.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachna Singh at 703.305.1952. The examiner can normally be reached on Monday-Friday from 8:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached at 703.308.5186.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 703.305.3900.

**Any response to this action should be mailed to:**

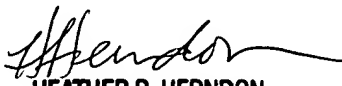
Commissioner of Patents and Trademarks  
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**or faxed to:**

<b>After-Final</b>	<b>703.746.7238</b>
<b>Official</b>	<b>703.746.7239</b>
<b>Non-Official/Draft</b>	<b>703.746.7240</b>

Hand-Delivered responses should be brought to Crystal park II, 2121 Crystal Drive, Arlington VA., Sixth Floor (Receptionist).

Rachna Singh  
June 29, 2002

  
**HEATHER R. HERNDON**  
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